AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Device for measuring the pressure of blood, intended to engage with a section (16) for measuring the pressure of blood flowing in a pipe (14), the pressure measurement section (16) comprising, in a substantially rigid wall (34), a hole (36) which is sealed by a closure element (38), the internal face (40) of which is in contact with the blood and the external face (42) of which is in contact with the ambient air, it being possible to elastically deform or displace the closure element (38) overall along a deformation or displacement axis (A-A), which is substantially orthogonal to its general plane, under the effect of the blood pressure, the pressure measurement device comprising a load sensor (26) secured to a support structure (20, 22) designed to support the pressure measurement section (16) in such a way that the load sensor (26) is placed substantially facing the closure element (38), along the deformation axis (A-A), the load sensor (26) being designed to be in contact, via the axial end of a sensitive member (52), with the external face (42) of the closure element (38) so as to measure the force applied axially to the internal face (40) of

the closure element (38) by the blood pressure, in order to calculate therefrom the value of this pressure, characterized in that:

- in order to operate a measurement, the load sensor (26) co-operates with the external face (42) of the associated closure element (38) only by contact of the load sensor (26) with said external face (42);

- the device (10) comprises means (58) for the relative axial displacement of the sensitive member (52), or of the measurement section (16), with respect to the support structure (20, 22), towards the closure element (38);

- the device (10) comprises a control system of the means (58) for the axial displacement of the sensitive member (52), or of the measurement section (16), such that, during an initial adjustment phase of the axial position of the sensitive member (52) with respect to the external face (42) of the associated closure element (38), the sensitive member (52) comes to contact with the external face (42) of the closure element (38) and applies a given initial pretensioning force (F_0), in order to make the pressure measurement device (10) suitable for measurement of blood pressure greater than the ambient air pressure and for measurement of blood pressure less than the ambient air pressure.

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2. (currently amended) Device (10) according to claim 1, characterized in that the axial displacement means (58) comprise a device (74) for immobilizing the sensitive member (52), of the ~~respective~~ measurement section (16), in a chosen axial position.

3. (previously presented) Device (10) according to claim 1, characterized in that the axial displacement means (58) comprise a linear actuator (58) which is capable of axially displacing the load sensor (26) and its sensitive member (52).

4. (currently amended) Device (10) according to claim 1, characterized in that [[it]] said sensitive member comprises a load transmitter [[(52)]] which is inserted between the closure element (38) and the load sensor (26) which is fixed, and in that the displacement of the load transmitter [[(52)]], which is axial with respect to the load sensor (26), is controlled by a linear actuator (58).

5. (previously presented) Device (10) according to claim 3, characterized in that the linear actuator (58) comprises an electric motor (62) of the stepper-motor type.

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6. (previously presented) Device (10) according to claim 1, characterized in that the closure element (38) is made in a single part with the associated rigid wall (34).

7. (previously presented) Device (10) according to claim 1, characterized in that the closure element (38) is

moulded with the associated rigid wall (34).

8. (currently amended) Device (10) according to claim 1, characterized in that it comprises a control system which controls the axial displacement means (58) so that an initial calibration operation, which consists in choosing the axial position of the sensitive member (52)~~, respectively~~ or of the measurement section (16), with respect to the external face (42) of the closure element (38)~~, respectively~~ or with respect to the axial end of the sensitive member (52), is carried out when the closure element (38) is in its rest state, this rest state corresponding to the absence of a pressure gradient between its external face (42) and its internal face (40).

9. (currently amended) Device (10) according to claim 8, characterized in that the control system controls the axial displacement means (58) so that, during the initial calibration operation, the axial displacement of the sensitive member (52) towards the external face (42) of the closure element (38)~~, respectively~~ or the axial displacement of the measurement section (16) towards the axial end of the sensitive member (52), is provoked until ~~to obtain~~ an initial pretensioning force (F_0) is obtained which is high enough so that the pressure measurement device (10) works in a linear region of the axial displacement means (58) where axial play has no effect on the pressure measurements.

10. (currently amended) Device (10) according to claim 1, characterized in that it comprises a control system which controls the axial displacement means (58) so that the response of the closure element (38) to a pretensioning force (F_0) can be analysed as a function of an axial displacement of the sensitive member (52)~~, respectively~~ or of the measurement section (16).

11. (previously presented) Device (10) according to claim 10, characterized in that the analysis of the response of the closure element (38) is aimed to determine an optimum pretensioning force (F_0) for measurements of blood pressure greater than the ambient air pressure and for measurements of blood pressure less than the ambient air pressure.

12. (currently amended) Process for controlling a device (10) for measuring the pressure of blood, intended to engage with a section (16) for measuring the pressure of blood flowing in a pipe (14), the pressure measurement section (16) comprising, in a substantially rigid wall (34), a hole (36) which is sealed by a closure element (38), the internal face (40) of which is in contact with the blood and the external face (42) of which is in contact with the ambient air, it being possible to elastically deform or displace the closure element (38) overall along a deformation or displacement axis (A-A), which is substantially orthogonal to its general plane, under the effect of the blood pressure, the pressure measurement device comprising

a load sensor (26) secured to a support structure (20, 22) designed to support the pressure measurement section (16) in such a way that the load sensor (26) is placed substantially facing the closure element (38), along the deformation axis (A-A), the load sensor (26) being designed to be in contact, via the axial end of a sensitive member (52), with the external face (42) of the closure element (38) so as to measure the force applied axially to the internal face (40) of the closure element (38) by the blood pressure, in order to calculate therefrom the value of this pressure,

characterized in that, during an initial adjustment phase of the axial position of the sensitive member (52) with respect to the external ~~phase~~ face (42) of the associated closure element (38), the sensitive member (52), or the measurement section (16), is axially moved, with respect to the support structure (20, 22), towards the closure element (38)~~, respectively~~ or towards the axial end of the sensitive member (52), such that the sensitive member (52) comes to contact with the external face (42) of the closure element (38) and applies a given initial pretensioning force (F_0), in order to make the pressure measurement device (10) suitable to measurement of blood pressure greater than the ambient air pressure and to measurement of blood pressure less than the ambient air pressure.

13. (currently amended) Process according to claim 12,

characterized in that the initial adjustment phase comprises an initial calibration operation, and that, during the initial calibration operation, the sensitive member (52)~~, respectively~~ or the measurement section (16), is axially moved towards the external face (42) of the associated closure element (38)~~, respectively~~ or towards the axial end of the associated sensitive member (52), up to a given axial position of reference in which the sensitive member (52) is in contact with the external face (42) of the closure element (38), ~~with a view~~ to establish a correlation between a given pretensioning force (F_0) and the rest state of the closure element (38), this rest state corresponding to an absence of a pressure gradient between its external face (42) and its internal face (40).

14. (currently amended) Process according to claim 13, characterized in that, during the initial calibration operation, the sensitive member (52)~~, respectively~~ or the measurement section (16), is axially moved towards the external face (42) of the closure element (38)~~, respectively~~ or towards the axial end of the sensitive member (52), until the sensitive member (52) applies an initial pretensioning force (F_0) which is high enough so that the pressure measurement device (10) works in a linear region of the axial displacement means (58) where axial play has no effect on the pressure measurements.

15. (currently amended) Process according to claim 12, characterized in that the initial adjustment phase comprises an analysis phase, and that the analysis phase consists in analysing the response of the closure element (38) to a pretensioning force (F_0) varying as a function of an axial displacement of the sensitive member (52)~~, respectively~~ or of the measurement section (16).

16. (previously presented) Process according to claim 15, characterized in that the analysis phase is used for the purpose of identifying a fault in the structure of the closure element (38).

17. (previously presented) Process according to claim 15, characterized in that the analysis phase is used for the purpose of determining an optimum pretensioning force (F_0) for measurements of blood pressure greater than the ambient air pressure and for measurements of blood pressure less than the ambient air pressure.